June 30, 1953

Dear Dr. Tyler:

I should have written sooner to thank you for sending me the reprints of your papers dealing with auto-antibodies. I have read them with the deepest interest.

My own experiments in this direction have so far been rather trivial (and inconclusive)— they dealt with the possible inhibition of motility of flagellated forms by Salmonella carrying the same antigenic determinants but unable to make flagella. I hopetto return to this at some later date.

Your papers mentioned, without elaboration, experiments on autoantibodies in bacteria, especially pneumococci. Have you speculated on the following kind of experiment: whether extracted capsular polysaccharide has any special affinity for rough, or nearly rough, cells of the same (as compared with different) antigenic type. I assume there must be some affinity between the bacterium and the capsular material made by it, but I don not know whether anyone has tried to re-"plate" it on to demuded cells. This should not be difficult to determine by serological, or perhaps even more readily by iso tope tracer methods. There is a similar problem with the Vi antigen of S. typhi, which can be "plated" on other bacteria or even RBC, but no one seems to have been interested to determine whether S. typhi lacking Vi (for either genetic or physiological reasons, as can readily be controlled) will have a particularly high affinity for this antigen, compared with other Salmonellas or unrelated bacteria. If you should have the opportunity to resume a study of bacterial auto-antibodies, I would recommend this system to your interest.

If I may interject, perhaps fortuitously, the term "antibody" seems to have so many connotations that many people may have refused even to consider seriously the "auto-antibody" concept because of the terminology. This is an exaggerated statement, but I wonder whether you have ever proposed an alternative nomenclature, and with what success.

Yours sincerely,

Joshua Lederberg
Associate Professor of Genetics